UNITED STATES PATENT AND TRADEMARK OFFICE

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10/015,899	12/17/2001	Akio Watanabe	217205US2	7342

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EXAMINER
RAMPURIA, SATISH

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
10/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/015,899	WATANABE ET AL.
	Examiner	**Art Unit**	
	Satish S. Rampuria	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 June 2007</u>.

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>17-41,45 and 46</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>9-16,42-44 and 47</u> is/are allowed.

6)☒ Claim(s) <u>9-47</u> is/are rejected.

7)☐ Claim(s) <u>18, 24 and 34</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Response to Amendment

1.   This action is in response to the appeal brief received on 06/05/2007.

2.   Claims previously cancelled by the Applicant: 1-8.

3.   The rejections under 35 U.S.C. §112 second paragraph to claim Claims 9, 11,

14, 16, 23, 32, 33, 41, 46 and 47 is withdrawn in view of Applicant's

amendment/comments.

4.   Claims allowed: 9-16, 42-44 and 47.

5.   Claims pending in the application: 17-41 and 45-46.

6.   In view of the Appeal brief filed on 06/05/2007, PROSECUTION IS HEREBY

REOPENED. New grounds of rejection set forth below.

       To avoid abandonment of the application, appellant must exercise one of the

following two options:

       (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

       (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

       A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below.

Response to Arguments

7.   Appellant's arguments with respect to claim have been considered but are moot

in view of the new ground(s) of rejection.

Specification

8.   A new title "PROCESSING SYSTEM AND METHOD USING RECOMPOSABLE

SOFTWARE" of the invention is filed on May 8, 2006. However, the specification (e.g.

see pages 1 and 8) and the claims (e.g. see claim 23) need to be updated to reflect the

new title.

Clarification and/or correction are required.

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter,
or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
requirements of this title.

10.   Claims 17-32 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 17-18 are directed to system of functional descriptive material per se, and

hence non-statutory. There are no indications or suggestions in the specification or

claims that would associate the recited software components in the claims with

hardware elements of the electronic device. The recited components of the claims can

reasonably be interpreted as computer program modules / software per se. Therefore,

the claims constitute computer programs representing computer listings per se. Such

descriptions or expressions of the programs are not physical "things." They are neither

computer components nor statutory processes, as they are not "acts" being performed.

Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a

computer, which permit the computer program's functionality to be realized. In contrast,

a claimed computer-readable storage device encoded with a computer program is a

computer element, which defines structural and functional interrelationships between

the computer program and the rest of the computer, that permits the computer

program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-

84, 32 USPQ2d at 1035.

Claims 19-22 are directed to system of functional descriptive material per se, and

hence non-statutory. There are no indications or suggestions in the specification or

claims that would associate the recited software components in the claims with

hardware elements of the electronic device. The recited components of the claims can

reasonably be interpreted as computer program modules / software per se. Therefore,

the claims constitute computer programs representing computer listings per se. Such

descriptions or expressions of the programs are not physical "things." They are neither

computer components nor statutory processes, as they are not "acts" being performed.

Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a

computer, which permit the computer program's functionality to be realized. In contrast,

a claimed computer-readable storage device encoded with a computer program is a computer element, which defines structural and functional interrelationships between the computer program and the rest of the computer, that permits the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 23-31 are directed to system of functional descriptive material per se, and hence non-statutory. There are no indications or suggestions in the specification or claims that would associate the recited software components in the claims with hardware elements of the electronic device. The recited components of the claims can reasonably be interpreted as computer program modules / software per se. Therefore, the claims constitute computer programs representing computer listings per se. Such descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable storage device encoded with a computer program is a computer element, which defines structural and functional interrelationships between the computer program and the rest of the computer, that permits the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 32 recite one computer program product, the term as described in the specification (page 57, [0262]) computer readable medium could be any type of media suitable for storing electronic instructions, one may assume a signal is "a storage medium and may include, but is not limited to, any type of disk including floppy disks, optical disks, CD-ROMs, magneto-optical disks, ROMs, RAMs, EPROMs, EEPROMs, flash memory, magnetic or optical cards, or any type of media suitable for storing electronic instructions.". Non-volatile media, i.e., media that can retain information in the absence of power, includes the ROM 1409, CD ROM, magnetic tape, and magnetic discs. Volatile media, i.e., media that cannot retain information in the absence of power, includes the main memory 1408. Transmission media includes coaxial cables, copper wire and fiber optics, including the wires that comprise the bus 1406. Transmission media can also take the form of carrier waves; i.e., electromagnetic waves that can be modulated, as in frequency, amplitude or phase, to transmit information signals. Additionally, transmission media can take the form of acoustic or light waves, such as those generated during radio wave and infrared data communications. Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism per se, and as such are nonstatutory natural phenomena. O 'Reilly v. Morse, 56 U.S. (15 How.) 62, 112-14 (1853). Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12.   Claim 23, 31, 33, and 41 rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent No. 6,453,435 to Limon, Jr. et al. (hereinafter called Limon) in view of

US Patent No. 6,278,797 to Nagasaki et al. (hereinafter called Nagasaki).

Per claim 23:

Limon discloses:

23. A general-purpose inspecting system for inspecting an object connected to an

input/output interface using a command, comprising:

    a software recombining section configured to recombine a software of inspection

use (col. 2, lines 57-59 "a memory portion which stores a program and a test file, the test file

containing a test definition which specifies at least one test operation to be carried out by the

test station through the coupling portion") in accordance with a type of the object (col. 2,

lines 54-58 "a test station which includes: a coupling portion operative to facilitate a detachable

operative coupling of the test station to a unit to be tested;").

Limon does not explicitly disclose means for reading inspection progress information related to the object during simulation, said means for reading displays a resultant on a screen of a display unit.

However, Nagasaki discloses in an analogous computer system means for reading inspection progress information related to the object during simulation (col. 10, lines 16-18 "the progress of inspection, it is displayed visually which one of the work on the work holder is defective"), said means for reading displays a resultant on a screen of a display unit (col. 10, lines 16-18 "the progress of inspection, it is displayed visually which one of the work on the work holder is defective").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of means for reading inspection progress information related to the object during simulation, said means for reading displays a resultant on a screen of a display unit as taught by Nagasaki into the of automatic testing of a circuit board as taught by Limon. The modification would be obvious because of one of ordinary skill in the art would be motivated to means for reading inspection progress information related to the object during simulation, said means for reading displays a resultant on a screen of a display unit to provide an improved method for inspecting circuit boards as suggested by Ngasaki (col. 1, lines 35-67).

Per claim 31:

The rejection of claim 23 is incorporated and further, Limon discloses:

31. The system according to claim 23, wherein said means for reading functions to debug and analyze the inspection receiving data (col. 17, lines 43-49 "debug mode is enabled... while a test is being carried out...can be used to develop and/or debug a PRG or MAC file, or to make temporary modifications to a PRG or MAC file for the purpose of isolating an elusive problem in a particular unit being tested").

Claim 33 is the method claim corresponding to method claims 23 and rejected under the same rational set forth in connection with the rejection of claims 23 above.

Claim 41 is the method claim corresponding to method claim 23 and rejected under the same rational set forth in connection with the rejection of claim 23 above.

Claim Rejections - 35 USC § 102

13.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14.   Claims 45-46 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,453,435 to Limon, Jr. et al. (hereinafter called Limon).

Per claim 45:

Limon discloses:

45. A general-purpose inspecting method having a first thread, comprising the steps of:

awaiting a user input in the first thread (col. 12, lines 15-18 "the system waits for the operator to authorize the system to begin a test, either by actuating the Start Test button 172 or by selecting the Start Test option from the Test Menu 178");

transmitting a command to a controlled device based upon the user input (col. 2, lines 50-51 "program causing the processor portion to process commands");

causing the controlled device to execute processing the command (col. 2, lines 48-50 "the processor portion being operative to execute the program");

receiving a command resultant (col. 4, lines 12-13 "displaying information which documents the results of tests conducted by the test system");

displaying a content of the command resultant at a control processor site (col. 4, lines 12-13 "displaying information which documents the results of tests conducted by the test system");

generating a second thread before entering a wait state (col. 20, lines 55-59 "two or more routines or "threads" can be running at the same time. These threads can pass information back and forth between each other through variables. This allows simultaneous testing of different parts of a unit under test"); and

specializing said second thread to indicate a status of the controlled device on a user interface (col. 29, lines 30-35 "SetSerialStatus <index> <status> Sets the status of the board specified by <index> on a multiple board test. The status is the pass or fail condition (0 for pass, 1 for fail). Parameters: <index> Index of the board to have status set. The serial number list is a zero-based index (the first board is index 0). <status> Status (0 for pass, 1 for fail)").

Per claim 46:

Limon discloses:

46: A general-purpose inspecting method, comprising the steps of:

awaiting a user input;

transmitting a prescribed command to a controlled device upon the user input (col. 12,

lines 15-18 "the system waits for the operator to authorize the system to begin a test, either by

actuating the Start Test button 172 or by selecting the Start Test option from the Test Menu

178");

causing the controlled device to execute the prescribed command (col. 2, lines 50-51

"program causing the processor portion to process commands");

receiving the command resultant (col. 4, lines 12-13 "displaying information which

documents the results of tests conducted by the test system");

displaying a content of the command resultant at a control processor site (col. 4, lines 12-

13 "displaying information which documents the results of tests conducted by the test system");

determining if a specific condition is satisfied in the controlled device (col. 24, lines 9-14

"Marks an execution block, which is processed if <condition> is met for the two values"); and

automatically executing specific processing (col. 2, lines 33-37 "a single test definition to

selectively carry out different levels of testing, which automates the selection of test definitions,

and/or which automates the selection of information that is to be programmed into a

programmable part on a unit under test") by said control processor when

the specific condition is satisfied (col. 24, lines 9-14 "Marks an execution block, which is

processed if <condition> is met for the two values").

15.   Claims 17 and 19-22 are rejected under 35 U.S.C. 102(e) as being as being

anticipated by US Patent No. 6,421,071 to Harrison (hereinafter called Harrison).

Per claim 17:

Harrison disclose:

A general-purpose inspecting system having a log function of filing inspection resultant

as a log file to be analyzed (col. 1, lines 22-23 "analyzing data in a group of log files...

display device"), said general-purpose inspecting system comprising:

 a data sampling section configured to sample only necessary information from said

log file as sample data (col. 2, lines 5-12 "user selects a set of log files... displaying the

top of the log files"); and

 a sample data file generation section configured to generate a sample file having a

smaller size than a size of the log file (col. 2, lines 5-12 "user selects a set of log files...

displaying the top of the log files" and col. 5-6, lines 60-67 and 1-55 "...After

CTS...updated... new beginning/ending line... stored in CTS... updates display... new

portion of the log file... "), said sample data file storing the sampled data (col. 2, lines

47-49 "Memory... database of log files...regular basis").

Per claim 19:

Harrison disclose:

19: A general-purpose inspecting system having a log function of filing

inspection resultant in a log file to be analyzed, said general-purpose inspecting

system, comprising:

a log file generation section configured to generate a log file storing the

inspection resultant (col. 2, lines 5-12 "user selects a set of log files... displaying the top

of the log files"); and

a sample data file generation section configured to generate a sample data file (col. 2,

lines 5-12 "user selects a set of log files... displaying the top of the log files" and col. 5-

6, lines 60-67 and 1-55 "...After CTS...updated... new beginning/ending line... stored in

CTS... updates display... new portion of the log file...")

configured to store predetermined information to be inspected by sampling from the

log file based upon preset information (col. 2, lines 47-49 "Memory... database of log

files...regular basis").

Per claim 20:

The rejection of claim 19 is incorporated and further, Harrison disclose:

20: The system according to claim 19, further comprising a display

section configured to display contents of the sample data file (col. 2, lines 5-12 "user

selects a set of log files... displaying the top of the log files").

Per claim 21:

The rejection of claim 20 is incorporated and further, Harrison disclose:

21: The system according to claim 20, wherein said display section is configured to display contents of the sample data file using various forms of display (col. 2, lines 5-12 "user selects a set of log files... displaying the top of the log files".

Per claim 22:

The rejection of claims 20 or 21 is incorporated, and further, Harrison disclose: wherein said display section generates prescribed statistical data from a plurality of sample data files (col. 2, lines 18-21 "lines of the log file being displayed... same time stamp").

Allowable Subject Matter

16.   Claim 18, 24 and 34 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 25-30 are directly or indirectly dependent on claim 24 are also objected as being dependent on objected claim 24. Claims 35-40 are directly or indirectly dependent on claim 34 are also objected as being dependent on objected claim 34.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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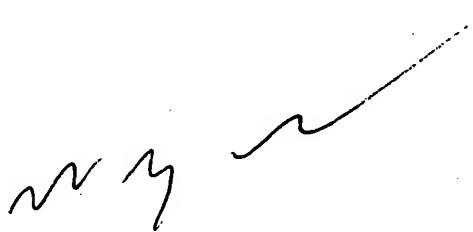
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